Social innovation in community partnerships for active and healthy ageing

Deliverable 4.1

KM UNIT 4.

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Acronyms & abbreviations

Item	Description
CS	Case Study
CT	Turin Municipality
KMU	Knowledge Management Unit

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Introduction

The main goal of KMU 4 is to explore three specific domains of knowledge within the conceptualizations inherent social innovation for the senior population in Europe.

To achieve this result the partnership, under the guidance of the project's scientific coordinator and at the proposal of the partner leader of the KMU 4 (CT), has decided to perform a semantic analysis of case studies produced by the partnership.

Each partner was therefore requested to provide some narratives of innovative and successful experiences by asking to important actors (later better specified) information on 3 topics:

- social protection system,
- social inclusion system,
- care models.

All topics are, obviously, addressed to the part of population of over 65 years, but the **first** one is more general and it belongs to what we can call the “prevention area”, aimed to the entire population, with a substantial impact on seniors.

The **second** topic is more specific and includes the interventions specifically designed to promote the social inclusion of seniors.

The **third**, lastly, is especially addressed to the people in a situation of “frailty”, often belonging to the “fourth age”, and at risk of hospitalization in structure for persons reliant on care. In these cases some targeted interventions can help persons to stay in their homes and live a more dignified life.

As declared in the project, has been explored the public sector, the private (or third sector) and the associations interventions, with a particular attention to the interactions among the three areas. The partnership has been also committed to explore the local, regional and national levels and to try to identify some Europeans guidelines.

The proposal of CT (as mentioned) has been to collect some testimonials written by important actors of the innovative processes identified by each partner.

These actors are clearly part of the Siforage project stakeholders, that has been proposed to call "privileged witnesses" or "key stakeholders", for their sensible role in the knowledge domain explored.

The methods of detection can be either the interview with a researcher, or the self-made filling of the required fields. In the first case it is important that the researcher writes the same words used by the witness, to facilitate the appropriateness of the semantic analysis.

The role of each partner involved is to firstly identify (eventually contacting local authority, the confederations and the groups of associations – it depends by the local situation and laws) the innovative interventions at each level and area. The second step can be the identification of the key persons for each selected project and a the direct contact with a request of testimonial. It is important to clarify at the witness the significance that this testimonial can have to improve the quality of relations with the other actors involved, at each level, and the possible impact for modifing the addresses in social and health policy.

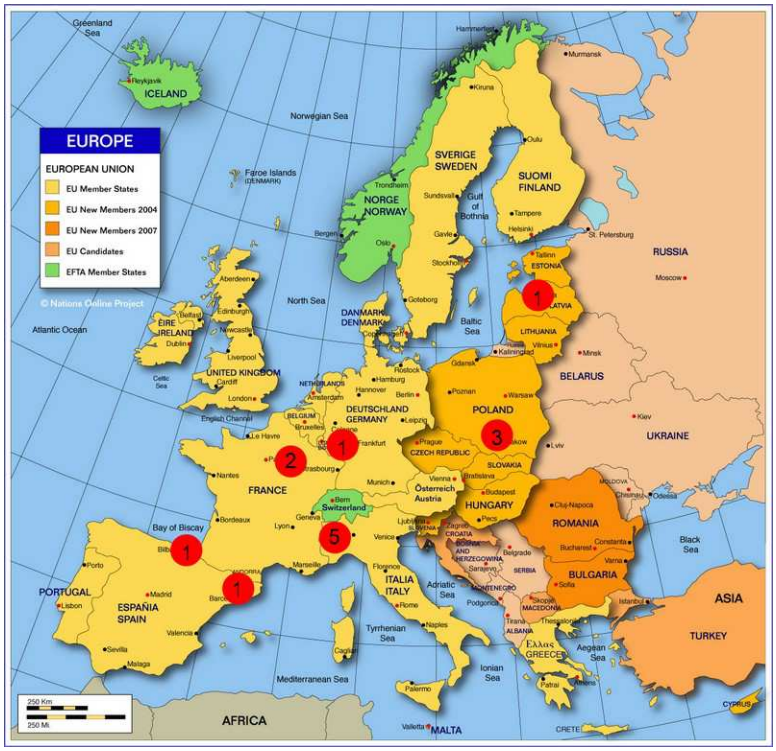
Case Studies

The Case study (CS) consist, therefore, in a narration containing:

- Description (brief exposition of the innovation considered successful and innovative, including Actions (what), Actors (who), Scene (where), Times (when), Reasons of the innovation (why- causes and assumed purposes);
- Context (Identification of the context aspects considered relevant);
- Key Words (a set of 5 key words which are considered most relevant to describe the situation as presented in the case proposed).

Each topic was further classified in 3 levels (local, regional, national) and 3 areas (Public, private, associationism). The scope was to ensure at the knowledge management unit a database enough populated and wide to permit a definition of some guidelines by sharing and discuss concrete praxis.

14 case studies have been received by the partner in charge of the data analysis (Turin Municipality),



Graph 1 - *Case studies by partner*

from **6 countries**…

5 CS from Italy

3 CS from Poland

2 CS from France

2 CS from Spain

1 CS from Germany

1 CS from Latvia

…and **7 Partner**

5 CS from Turin Municipality

3 CS from Krakow Municipality

2 CS from Champagne-Ardenne Research and Innovation Agency

1 CS from Fundacion Instituto Gerontologico Matia

1 CS from Università di Lleida; 1 CS from German Research Centre for Artificial Intelligence;
1 CS from University of Latvia's Advanced Social and Political Research Institute

The features of of the study cases are the following:

- **Topic** of CS: 7 social inclusion system, 4 care model, 3 social protection system

- **Level** of CS: 9 local, 4 regional, 1 national

- **Area** of CS: 6 public, 5 association, 3 private

Word clouds

"A tag cloud (word cloud, or weighted list in visual design) is a visual representation for text data, typically used to depict keyword metadata (tags) on websites, or to visualize free form text. Tags are usually single words, and the importance of each tag is shown with font size or color.

This format is useful for quickly perceiving the most prominent terms and for locating a term alphabetically to determine its relative prominence"
(from Wikipedia, the free encyclopedia)

Keywords word cloud

A large part of narrators has interpreted in a extensive way the keywords, so that it has been very difficult the work of classification or the reduction into a single term. The result of the endeavour is shown in the following graph.

Graph 2 - *Keywords cloud*

Case studies word cloud

Relatively simple (compared to the keywords) it was the building of the cloud of words and the frequences related to the texts of the narratives, also facilitated by the increased amount of words. In this case, the difficulty has been to eliminate the parts of speech not related to the topics under investigation.

Graph 3 - *Case studies cloud*

Case studies narratives frequencies

(mostly used words - up to freq=4)

Word	Freq	area	11	participation	8
people	55	association	11	passengers	8
older	53	innovation	11	person	8
social	52	persons	11	private	8
project	44	place	11	regional	8
public	43	well	11	reims	8
health	40	activity	10	school	8
elderly	26	because	10	schools	8
city	25	children	10	seniors	8
care	24	community	10	topics	8
home	23	education	10	year	8
mobility	21	service	10	young	8
local	20	study	10	aged	7
different	19	action	9	awareness	7
age	18	being	9	book	7
help	18	initiative	9	bureau	7
life	18	municipality	9	experience	7
needs	18	order	9	frailty	7
citizens	17	population	9	grandmothers	7
work	17	ageing	8	individual	7
activities	16	approach	8	lectures	7
level	16	centre	8	memory	7
new	16	contact	8	old	7
services	16	events	8	partnership	7
time	16	exchange	8	process	7
physical	15	healthy	8	residents	7
students	14	homes	8	support	7
associations	13	housing	8	through	7
group	13	important	8	assistance	6
transport	13	interviews	8	better	6
active	12	involved	8	bus	6
inclusion	12	learning	8	buy	6
information	12	long	8	campaign	6
medical	12	meetings	8	case	6
practitioners	12	model	8	cernay	6
specific	12	offers	8	companies	6
system	12	out	8	designed	6
transportation	12	part	8	difficult	6

districts	6	participants	5	improve	4
economic	6	potential	5	include	4
effort	6	prevention	5	interventions	4
experiences	6	preventive	5	issues	4
field	6	programme	5	job	4
foundation	6	rémois	5	launched	4
grandmothers’	6	research	5	lifestyle	4
identify	6	similar	5	living	4
interview	6	stops	5	machines	4
necessary	6	talk	5	main	4
parents	6	term	5	management	4
period	6	training	5	mobia	4
promotion	6	use	5	nurses	4
quality	6	using	5	opportunity	4
safety	6	voluntary	5	photos	4
situation	6	war	5	piemonte	4
ticket	6	way	5	posters	4
years	6	able	4	present	4
allows	5	actors	4	problems	4
available	5	aim	4	projects	4
construction	5	allowing	4	propose	4
daily	5	appropriate	4	protection	4
development	5	ars	4	raise	4
district	5	aspects	4	regarding	4
doctor	5	authority	4	risk	4
entities	5	barriers	4	role	4
falls	5	building	4	senior	4
free	5	business	4	solidarity	4
general	5	carried	4	solutions	4
give	5	cognitive	4	spruza	4
helpers	5	communication	4	staff	4
hours	5	conducted	4	state	4
houses	5	cultural	4	strategy	4
however	5	develop	4	systems	4
interest	5	enabling	4	themes	4
interesting	5	families	4	together	4
live	5	family	4	transition	4
make	5	focus	4	visits	4
national	5	funding	4	writing	4
need	5	germany	4		
number	5	house	4		
nursing	5	implementation	4		

Semantic categorizations

A software assisted analysis has been used to classify the words of the text in a series of semantic categories.
This makes possible to know how the narrator expresses himself.

Here are the main categories:

- The **Verbs** are expressing action (*Factive*), states or concepts of possession (*Stative*), statements about facts, actions, people, objects, or feelings (*Reflexive*), an act through and in the language (*Performative*).
- The **Connectors** are words enabling to join together part of speech (mainly *conjunctions*).
- The **Modalities** are *adverbs* enabling the narrator to involve in what he says.
- The **Adjectives** shows existence or absence of a property (*Objective*), judgment on something or an emotional reaction (*Subjective*).
- The **Pronouns**

Verbs:

Factive	49.1%	(420)
Stative	31.5%	(269)
Reflexive	19.4%	(166)
Performative	0.0%	(0)

Connectors:

Condition	1.7%	(6)
Cause	4.8%	(17)
Goal	2.6%	(9)
Addition	66.5%	(234)
Disjunction	6.5%	(23)
Opposition	7.7%	(27)
Comparison	6.8%	(24)
Time	3.4%	(12)
Place	0.0%	(0)

Main **Modalities:**

Time	28.8%	(65)
Place	13.3%	(30)
Manner	28.3%	(64)
Assertion	2.2%	(5)
Doubt	0.4%	(1)
Negation	8.8%	(20)
Intensity	18.1%	(41)

Main **Adjectives:**

Objective	65.0%	(603)
Subjective	22.0%	(204)
Numeral	13.0%	(121)

Main **Pronouns:**

"He"	4.3%	(4)
"We"	6.5%	(6)
"You"	1.1%	(1)
"They"	54.8%	(51)
"Somebody"	5.4%	(5)

The results highlight a marked predominance of factive verbs, additional connectors, objective adjectives, typical factors of formal and explanatory speech, rather than of the narrative style.

This outcome seems to be attributed to the presence of the interviewer, the need of translation of the texts in English, and the topics of the case studies themselves.

Scenarios

A Scenario consists of a number of Semantic Groups, i.e. several combinations of substantives, lemmas and/or Equivalent class. It is the classical semantic classification software assisted.
This is the activity in which the researcher tries to subdivide the parts of the speech into classes, giving them a meaning according to their role and position within the discourse.

Graph 4 - *Main scenario categories and related number of words*

The scenario built for case studies is composed by 2210 words (selectet by a total of 8000), subdivided in 17 main category and 371 subcategories.

During the construction phase of the categories, are also specified by the researcher the most important terms associated with the main concepts inferred from narratives. In addition to the subject matter of the interviews were therefore chosen the terms and keywords most significant.

The following graphs shows the Relations between the References. They are oriented: the References on the left of the central Reference are its predecessors, those on the right its successors.

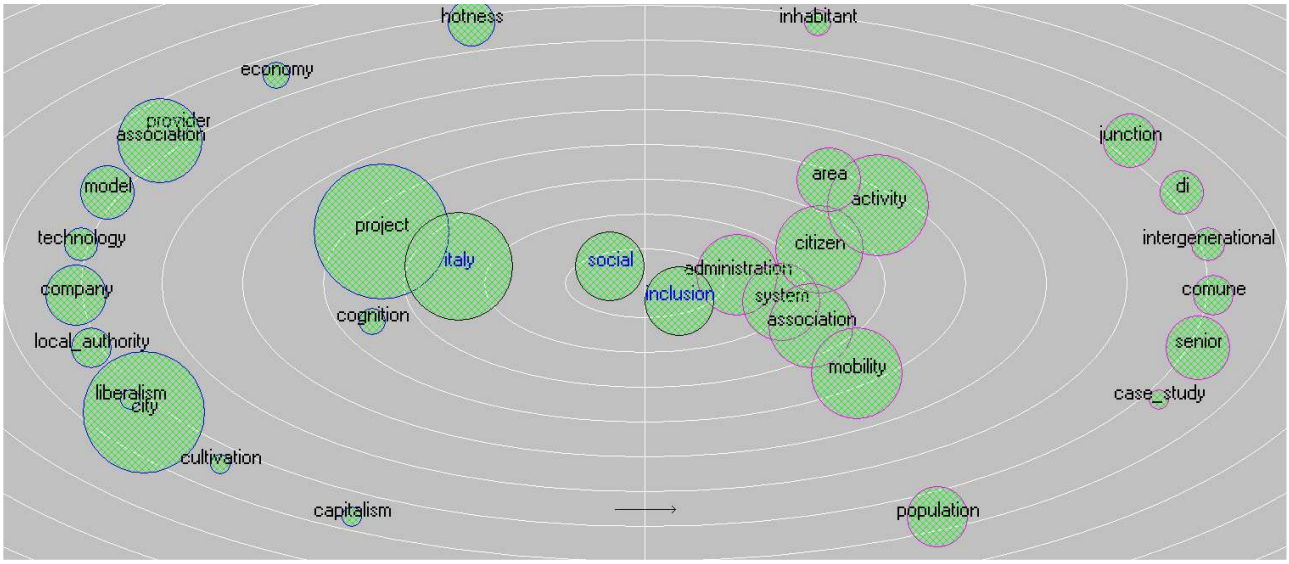
Key concepts

On these graphs, each Reference appears as a sphere, whose surface is proportional to the number of words it contains.

The distance between the central class and the other classes is proportional to the number of Relations connecting them: in other words, when two classes are close together, they share many Relations, and when they are far from one another, they share few Relations.

The first and most general concept in this study is the **social inclusion** of seniors. From the results of the analysis on the case studies presented by the partners is quite evident that this phenomenon is linked to both public intervention (*administration, local authority, municipality*) and the action of the vital worlds of the territory (associations, citizens, activities).

It is probably in the effect of these two joint actors of social life (seen as a *system*) that are developed innovation *projects*. Some variables, finally seem to be able to positively influence the inclusion: the *mobility* for all, the involvement of the *population* and of the *other generations*, the *technology*, the participation of private *companies*, the *economic* factors, the social *cognition*.



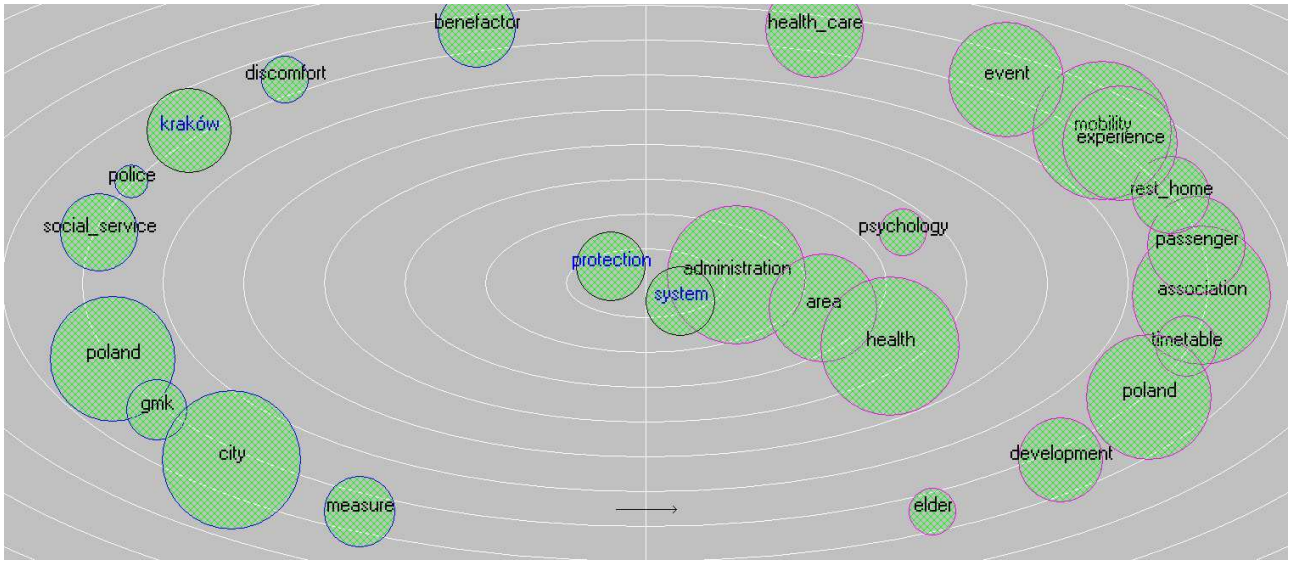
Graph 5 - *Social inclusion systems*

The **protection systems** seem to depend more on the action of public authorities, in particular on the presence of *social* and *health* services.

The main factors of innovation in this area could therefore cover the optimization of the public apparatus, which could be open to the contribution of *associations* and *charities*.

An important issue, however, seems to take shape in the background: *home care*, which will be devoted to a separate paragraph.

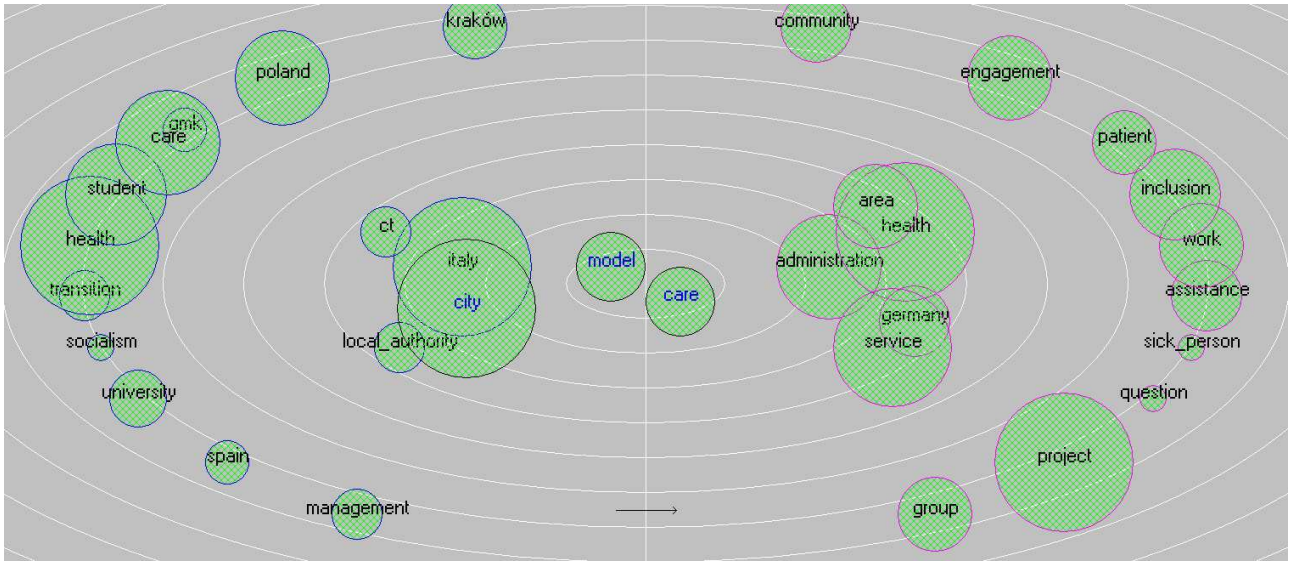
The paucity of case studies and keywords on this topic, however, make it difficult to venture more deductions.



Graph 6 - *Social protection systems*

The **models of care** presented in the case studies seem to extensively involve local *communities* and nations, also represented by the world of *work*, the *students*, the *services* they contain, social *groups* and institutions.

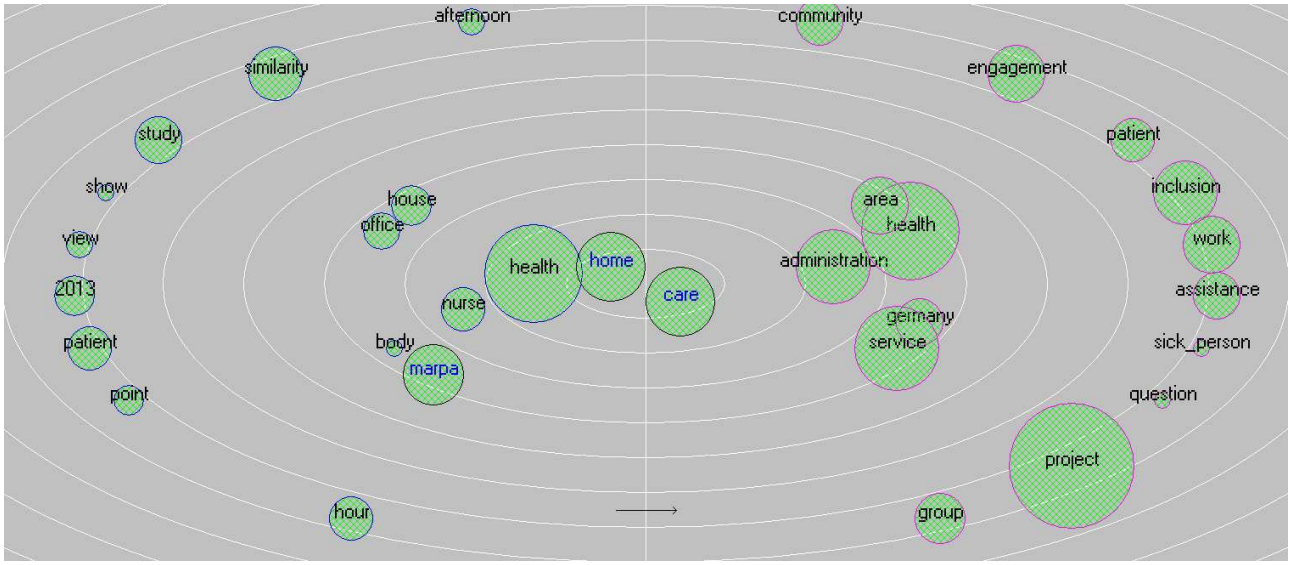
Project management seems destined to be widely participatory and *inclusive*.



Graph 7 - *Models of care*

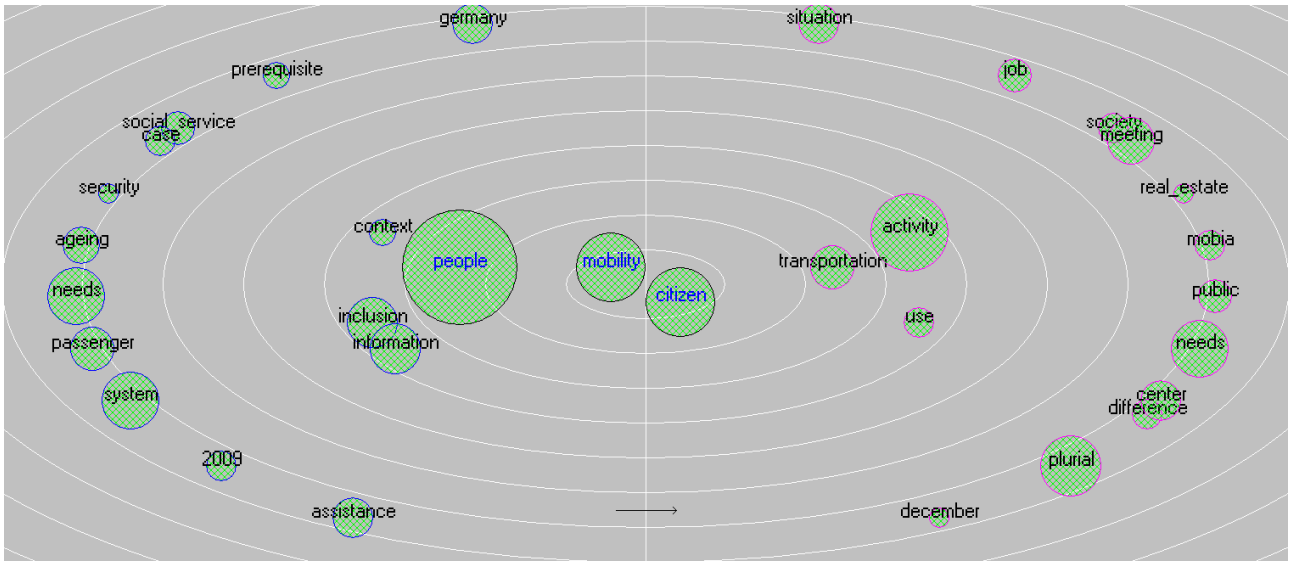
A concept that has been repeated in most of the case studies is the **home-based care**, which seems to be the solution that best meets the needs of seniors and promotes the persistence of habits and connections.

The *health* situation seems to be an important discriminating factor that can be overcome at home thanks to dedicated *care* and *service*. Also in this case *project, inclusion, community* and *involvement* are related key concepts: they seem to clarify the modalities of the intervention.



Graph 8 - *Home care*

Another aspect related to the previous and, doubtless, also a discriminating factor is the **mobility**. To benefit of a comfortable and accessible *transportation* seems to be a *prerequisite* for access to *activities*, *meetings* and, more generally, to the *social* life.
In the case studies mobility is presented as an important factor for inclusion and safety too, as the concept also covers the area of movement at home and within the public and private buildings.

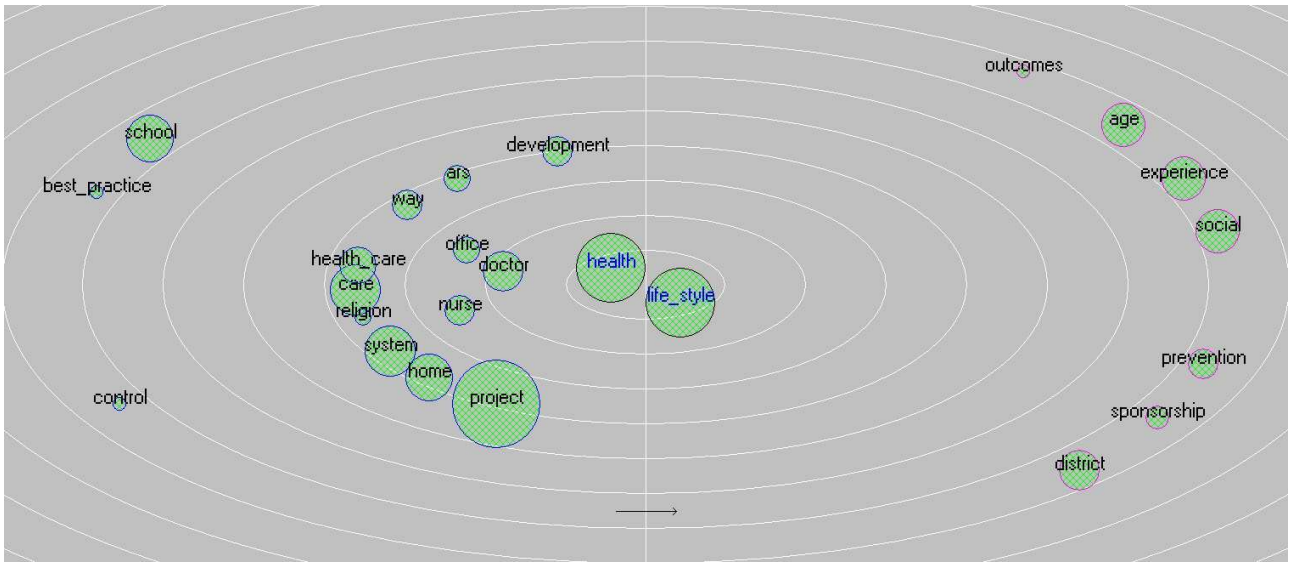


Graph 9 - *Mobility*

The main argument concerning the prevention factors reported in the case studies is **health life style**.

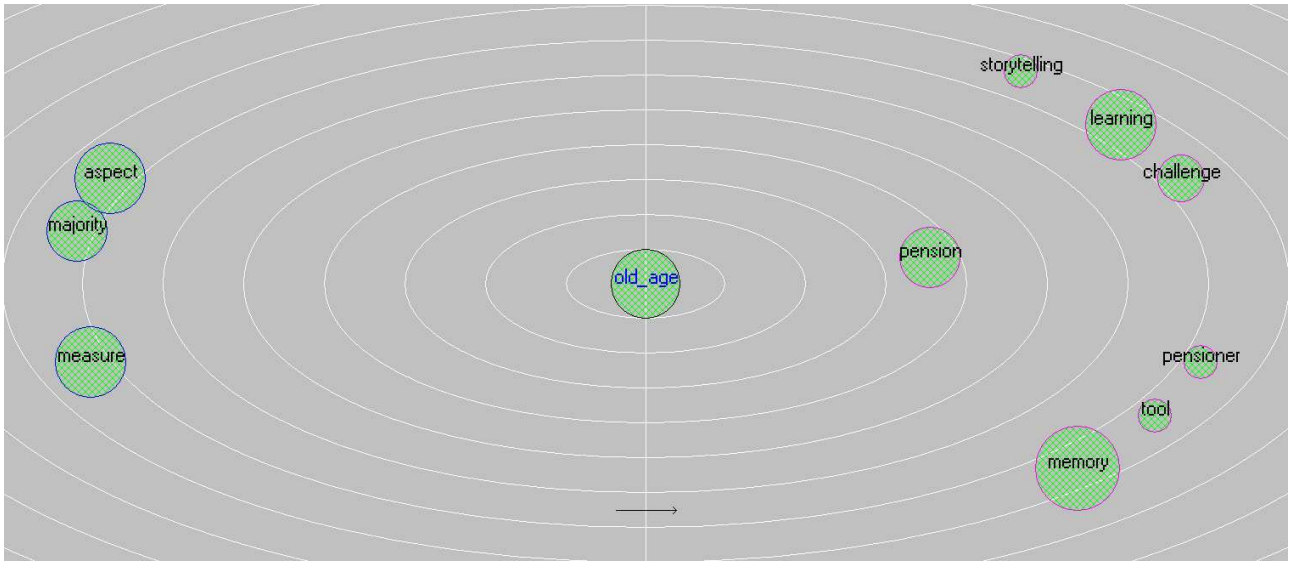
It is interesting to note that, among the conceptualizations with more reports, are also included *religious* aspects, in addition to the *social* intervention and *preventive health care*.

The overview suggests a holistic approach rather than reductionist; the activation of a network between existing services rather than the creation of dedicated and all-inclusive services; a planninig perspective rather than bureaucratic structure, a systemic vision rather than specialistic optics.



Graph 10 - *Health life style*

Finally, particular attention has been devoted in many case studies to the current condition of the **old age**. it is rather significant the graphic representation of the conceptual domain, highlighted in Graph 4. The perception of isolation appears immediately, while the closer concept it is *pension*. The other concepts (*story telling, learning, challenge, memory, tools, measure* ...), although very interesting in terms of innovation, appear rather distant, drawn in the background. It seems appropriate to bridge the gap and to make the opportunities more easily accessible to seniors.



Graph 11 - *Old age*

Conclusions

The results of this first analysis appear to be rather interesting , even though they still be improved by increasing the number of case studies. Semantic analysis, in fact, becomes more accurate with increasing textual corpus of origin.

Another aspect of improvement may be related to the involvement of a greater number of partners. At this time, in fact, the sum of the narratives of 3 partners (on 18) covers 71 % of the total.

In spite of these factors, the revealed aspects of innovation seem to be easily translated into recommendations for policy makers to start operating practices based on scientific evidence, even though they are derived from qualitative analysis rather than statistics validated quantitatively.

The exploration of knowledge domains in rapid evolution, in fact, tends to make unproductive quantitative ex post analysis, to the advantage of current methodologies that are daily positive feedbacked in the search engines on the Internet, such as the semantic analysis.